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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/979,575	11/06/2001	Paul J. Biermann	1550-SPL	5943
7590 03/26/2004			EXAMINER	
Francis A Cooh			FOELAK, MORTON	
The Johns Hopkins University Applied Physics Laboratory			ART UNIT	PAPER NUMBER
11100 Johns Hopkins Road Laurel, MD 20723-6099			1711	
			DATE MAILED: 03/26/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

·	Application No.	Applicant(s)				
Office Action Summers	09/979,575	BIERMANN ET AL.				
Office Action Summary	Examiner	Art Unit				
	Morton Foelak	1711				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period we Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	66(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on						
2a) This action is FINAL . 2b) ☐ This	This action is FINAL . 2b)⊠ This action is non-final.					
,						
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)⊠ Claim(s) <u>1-48</u> is/are pending in the application.						
4a) Of the above claim(s) <u>15-44</u> is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-14 and 45-48</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9) The specification is objected to by the Examine	г.					
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date						
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	5) Notice of Informal P 6) Other:	atent Application (PTO-152)				

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DETAILED ACTION

Applicant's election without traverse of the Restriction
 Requirement in the response of Aug. 13, 2003 is acknowledged. Claims
 15-44 stand withdrawn from further consideration and the
 Requirement IS made FINAL.

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arens et al, Kagoshima et al, of record, EPA 0 500 009 Al, cited by applicants, and the Morehouse, Jr. et al patent, newly cited.
- 4. Patentees all disclose a plurality of cured resinous cells in contact with at least one other cell.

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5. Arens can either encapsulate liquids col. 2 lines 31-51, solids col. 3 lines 63 to col. 4 line12; Kagoshima et al and the EPA patent encapsulate either solid inorganic or organic foaming agents in their curable resinous polymer col. 4 lines16-29 of the US patent; and Morehouse Jr. can both encapsulate volatile liquid foaming agents in resinous microspheres or after the foaming agents are heated to foam the microspheres said microspheres are hollow.

- 6. Since all the resins employed are curable and in col. 18 lines 25-28 Morehouse Jr. et al can use cross linking di-unsaturated monomers in formulating the coating of their microspheres they too have cured resinous hollow and liquid microspheres.
- 7. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Morton Foelak whose telephone number is (571) 272-1071. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Morton Foelak

Primary Examiner

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